



EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA); Scientific Opinion on the substantiation of health claims related to a combination of *Lactobacillus helveticus* CNCM I-1722 and *Bifidobacterium longum* subsp. *Longum* CNCM I-3470 and alleviation of psychological stress (ID 938) and “maintains the balance of healthy microbiota that helps to strengthen the natural defence” (ID 2942) (further assessment) pursuant to Article 13(1) of Regulation (EC) No 1924/2006

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SCIENTIFIC OPINION

Scientific Opinion on the substantiation of health claims related to a combination of *Lactobacillus helveticus* CNCM I-1722 and *Bifidobacterium longum* subsp. *longum* CNCM I-3470 and alleviation of psychological stress (ID 938) and “maintains the balance of healthy microbiota that helps to strengthen the natural defence” (ID 2942) (further assessment) pursuant to Article 13(1) of Regulation (EC) No 1924/2006¹

EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA)^{2, 3}

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ABSTRACT

Following a request from the European Commission, the Panel on Dietetic Products, Nutrition and Allergies (NDA) was asked to provide a scientific opinion on health claims pursuant to Article 13 of Regulation (EC) No 1924/2006 in the framework of further assessment related to a combination of *Lactobacillus helveticus* CNCM I-1722 and *Bifidobacterium longum* subsp. *longum* CNCM I-3470 and alleviation of psychological stress and “maintains the balance of healthy microbiota that helps to strengthen the natural defence”. The food constituent that is the subject of the health claims, a combination of *L. helveticus* CNCM I-1722 and *B. longum* subsp. *longum* CNCM I-3470, is sufficiently characterised. The claimed effect, alleviation of psychological stress, is a beneficial physiological effect. No human intervention studies were provided from which conclusions could be drawn for the scientific substantiation of the claim. On the basis of the data provided, the Panel concludes that a cause and effect relationship has not been established between the consumption of a combination of *L. helveticus* CNCM I-1722 and *B. longum* subsp. *longum* CNCM I-3470 and alleviation of psychological stress. From the information provided for the claimed effect “maintains the balance of healthy microbiota that helps to strengthen the natural defence” it was not possible to establish the specific effect which is the subject of the claim. The Panel considers that the claimed effect is general and non-specific, and does not refer to any specific health claim as required by Regulation (EC) No 1924/2006. © European Food Safety Authority, 2012

KEY WORDS

Lactobacillus helveticus CNCM I-1722, *Bifidobacterium longum* subsp. *longum* CNCM I-3470, psychological stress, microbiota, natural defence, health claims.

¹ On request from the European Commission, Question No EFSA-Q-2012-00130, EFSA-Q-2012-00178, adopted on 28 June 2012.

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SUMMARY

Following a request from the European Commission, the Panel on Dietetic Products, Nutrition and Allergies (NDA) was asked to provide a scientific opinion on a list of health claims pursuant to Article 13 of Regulation (EC) No 1924/2006. The Commission has agreed with EU Member States that a certain number of Article 13 health claims would be eligible for further assessment by EFSA in order to be able to take a final decision on whether or not to include these claims in the list of permitted health claims. This opinion addresses the scientific substantiation of health claims in relation to the combination of *Lactobacillus helveticus* CNCM I-1722 and *Bifidobacterium longum* subsp. *longum* CNCM I-3470 and alleviation of psychological stress and “maintains the balance of healthy microbiota that helps to strengthen the natural defence”. The scientific substantiation is based on the information provided by the competent Authorities of the United Kingdom and of Italy for further assessment of this claim.

The food constituent that is the subject of the health claims is a combination of *L. helveticus* CNCM I-1722 and *B. longum* subsp. *longum* CNCM I-3470. The Panel considers that the combination of *L. helveticus* CNCM I-1722 and *B. longum* subsp. *longum* CNCM I-3470 is sufficiently characterised.

Alleviation of psychological stress

The claimed effect, which is proposed for further assessment, is “significant improvement of stress-induced psychological and gastrointestinal symptoms like anxiety, anger-hostility, depressive symptoms, nausea and abdominal pain”. The proposed target population is healthy adults experiencing moderate stress or anxiety. The Panel considers that alleviation of psychological stress is a beneficial physiological effect.

One double-blind, placebo-controlled, randomised, parallel study assessed the effect of a combination of *L. helveticus* CNCM I-1722 and *B. longum* CNCM I-3470 on symptoms claimed to be related to stress. Symptoms were assessed by a self-administered questionnaire at the beginning and at the end of the intervention. The Panel notes that no information was given about validation of the questionnaire used for subjective measurements, that the process of randomisation was insufficiently described, that inclusion criteria (at least two symptoms perceived as induced by stress) were not sufficiently defined, and that no correction for multiple testing was performed in the statistical analysis of the results. The Panel considers that no conclusions can be drawn from this study for the scientific substantiation of the claim.

Another double-blind, placebo-controlled, randomised, parallel study, which was described in two publications, assessed the potential anxiolytic effect of a combination of *L. helveticus* CNCM I-1722 and *B. longum* CNCM I-3470. The Panel notes that this study was designed for measuring anxiety and not changes induced by stress, and considers that no conclusions can be drawn from this study for the scientific substantiation of the claim.

No human intervention studies were provided from which conclusions could be drawn for the scientific substantiation of the claim.

On the basis of the data presented, the Panel concludes that a cause and effect relationship has not been established between the consumption of a combination of *L. helveticus* CNCM I-1722 and *B. longum* subsp. *longum* CNCM I-3470 and alleviation of psychological stress.

“Maintains the balance of healthy microbiota that helps to strengthen the natural defence”

The claimed effect, which is proposed for further assessment, is “maintains the balance of healthy microbiota that helps to strengthen the natural defence”. The proposed target population is the general

population. The Panel notes that from the information provided it was not possible to establish the specific effect which is the subject of the claim.

The Panel considers that the claimed effect is general and non-specific, and does not refer to any specific health claim as required by Regulation (EC) No 1924/2006.

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BACKGROUND AS PROVIDED BY THE EUROPEAN COMMISSION

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TERMS OF REFERENCE AS PROVIDED BY THE EUROPEAN COMMISSION

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EFSA DISCLAIMER

See Appendix B

INTRODUCTION

The Commission has agreed with EU Member States that a certain number of Article 13 health claims would be eligible for further assessment by EFSA in order to be able to take a final decision on whether or not to include these claims in the list of permitted health claims. These claims include already assessed claims related to micro-organisms which the Panel considered to be not sufficiently characterised and claims for which the NDA Panel concluded that there was insufficient evidence to establish a cause and effect relationship between the consumption of the food and the claimed effect.

Following an opinion of the NDA Panel pursuant to Article 13 of Regulation (EC) No 1924/2006⁴ in which the Panel concluded that the data available were not sufficient to characterise a combination of *Lactobacillus helveticus* CNCM I-1722 and *Bifidobacterium longum* CNCM I-3470 and a combination of *Lactobacillus acidophilus* Bar 13 (CNCM-I-3857) and *Bifidobacterium longum* Bar 33 (CNCM-I-3858) (EFSA Panel on Dietetic Products Nutrition and Allergies (NDA), 2009, 2010), EFSA received additional information from the competent Authorities of the United Kingdom and of Italy for further assessment of this claim. The information provided in the framework of further assessment for the health claims which are the subject of this opinion is tabulated in Appendix C.

ASSESSMENT

1. Characterisation of the food/constituent

The food constituent that is the subject of the health claims is a combination of *Lactobacillus helveticus* CNCM I-1722 and *Bifidobacterium longum* subsp. *longum* CNCM I-3470.

According to the information provided in the application for further assessment of ID 2942, the food constituent which is the subject of ID 2942 is a combination of *L. helveticus* R0052 and *B. longum* R0175. *L. helveticus* R0052 is also known as *L. helveticus* CNCM I-1722, and *B. longum* R0175 is also known as *B. longum* CNCM I-3470.

Data on the identification and characterisation of *L. helveticus* CNCM I-1722 at species and strain level, by using both phenotypic (cell morphology, colony morphology, carbohydrate fermentation pattern, enzymatic activity profile, antimicrobial resistance pattern, PAGE) and genotypic (DNA-DNA hybridisation, 16S rRNA gene sequence analysis, 16S/23S intergenic spacer region sequence analysis, species-specific PCR, AFLP, MLST, RAPD, PFGE) methods, were provided in the applications for further assessment and in the accompanying references (Brigidi, 2008; Firmesse et al., 2008; Kheadr, 2006; Lallemand SAS; Naser et al., 2006). The Panel considers that the strain *L. helveticus* CNCM I-1722 is sufficiently characterised.

Data on the identification and characterisation of *B. longum* subsp. *longum* CNCM I-3470 at species and strain level, by using both phenotypic (cell morphology, colony morphology, carbohydrate fermentation pattern, enzymatic activity profile, antimicrobial resistance pattern) and genotypic (16S rRNA gene sequence analysis, elongation factor *tuf* gene sequence analysis, RAPD, PFGE) methods, were provided in the application for further assessment and in the accompanying references (Brigidi, 2008; Kheadr et al., 2007; Lallemand SAS; Mattarelli et al., 2008). The Panel considers that the strain *B. longum* subsp. *longum* CNCM I-3470 is sufficiently characterised.

The Panel considers that the food constituent, a combination of *L. helveticus* CNCM I-1722 and *B. longum* subsp. *longum* CNCM I-3470, which is the subject of the health claims, is sufficiently characterised.

⁴ Regulation (EC) No 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods. OJ L 404, 30.12.2006, p. 9–25.

2. Relevance of the claimed effect to human health

2.1. Alleviation of psychological stress (ID 938)

The claimed effect, which is proposed for further assessment, is “significant improvement of stress-induced psychological and gastrointestinal symptoms like anxiety, anger-hostility, depressive symptoms, nausea and abdominal pain”. The proposed target population is healthy adults experiencing moderate stress or anxiety.

The Panel assumes that the claimed effect refers to alleviation of psychological stress. The Panel considers that alleviation of psychological stress is a beneficial physiological effect.

2.2. “Maintains the balance of healthy microbiota that helps to strengthen the natural defence” (ID 2942)

The claimed effect, which is proposed for further assessment, is “maintains the balance of healthy microbiota that helps to strengthen the natural defence”. The proposed target population is the general population.

The Panel notes that it is not possible to define the exact number of the different microbial groups which constitute a balanced healthy microbiota.

The references provided in relation to this claim included reports on identification and characterisation aspects of the bacterial strains (Naser et al., 2006), a review on anti-inflammatory activity of different bacterial strains (Mengheri, 2008), an *in vitro* study on the properties of the bacterial strains (i.e. adhesion, competition against enteropathogens and modulation of IL-8 production (Candela et al., 2008)), an animal study investigating the effect of the combination of the strains which is the subject of the claim on an experimental model of induced colitis in mice (Roselli et al., 2009), and a human intervention study investigating the effect of a combination of the strains containing also fructo-oligosaccharides on the composition of gut microbiota and metabolic profiles (Vitali et al., 2010). An abstract from a meeting was also provided; the abstract reported on a human study conducted with the combination of the strains that is the subject of the claim on lymphocyte subsets from elderly subjects (Finamore, 2011). The Panel notes that from the information provided it was not possible to establish the specific effect which is the subject of the claim.

The Panel considers that the claimed effect is general and non-specific, and does not refer to any specific health claim as required by Regulation (EC) No 1924/2006.

3. Scientific substantiation of the claimed effect

3.1. Alleviation of psychological stress (ID 938)

Among the references provided in relation to the claim were human, animal and *in vitro* studies which were unrelated to the combination of *L. helveticus* CNCM I-1722 and *B. longum* CNCM I-3470 (Estrada et al., 2001; Firmesse et al., 2008; Haskey and Dahl, 2006; Johnson-Henry et al., 2007; Wine et al., 2009). The Panel considers that no conclusions can be drawn from these studies for the scientific substantiation of the claim.

Three human intervention studies on a combination of *L. helveticus* CNCM I-1722 and *B. longum* CNCM I-3470 (Diop et al., 2008; Messaoudi et al., 2010; 2011) were provided for the scientific substantiation of the claim.

Diop et al. (2008) in a double-blind, placebo-controlled, randomised, parallel study assessed the effect of a combination of *L. helveticus* CNCM I-1722 and *B. longum* CNCM I-3470 on symptoms claimed to be related to stress. Adult volunteers aged 18-60 years with at least two symptoms (anxiety, nervousness, irritability, sleeping problems, gastro-intestinal disturbances) perceived as induced by stress during the preceding month, but not receiving any medical treatment for stress-induced symptoms, were eligible for the study. Subjects randomly received a combination of the two bacterial strains (3×10^9 CFU per sachet, *L. helveticus* CNCM I-1722 and *B. longum* CNCM I-3470 in a ratio of 9:1, one sachet daily) or placebo for three weeks. Participants completed a questionnaire on stress-induced symptoms at the beginning and at the end of the intervention. The questionnaire consisted of 62 items related to symptoms in the following areas: gastro-intestinal, cardiovascular, sleeping, locomotor, physical, psychological, intellectual, spiritual and social. Each symptom was evaluated using a 10-cm visual analogue scale (VAS). A global score for each area was determined as the mean of each item. The changes of the score between the baseline and the end of the study were calculated and compared between the two groups using the unpaired Student's *t* test. A total of 75 subjects (54 females, aged 38 ± 11 years) were randomised (37 in the study group and 38 in the placebo group) and 64 finished the study (31 in the intervention group and 33 in the placebo group). The reasons for drop-outs were given. The Panel notes that no information was given about the validation of the questionnaire used for subjective measurements, that the process of randomisation was insufficiently described, that inclusion criteria (at least two symptoms perceived as induced by stress) were not sufficiently defined and justified, and that no correction for multiple testing was performed in the statistical analysis of the results. The Panel considers that no conclusions can be drawn from this study for the scientific substantiation of the claim.

Messaoudi et al. (2010) studied the potential anxiolytic effect of a combination of *L. helveticus* CNCM I-1722 and *B. longum* CNCM I-3470 in a double-blind, placebo-controlled, randomised, parallel study. The Hospital Anxiety and Depression Scale (HADS) was used for the enrolment of subjects. Their results had to be ≤ 20 in the HADS total score, ≤ 12 in HADS-anxiety subscale and ≤ 12 in HADS-depression subscale. Sixty-six subjects were randomised to take either the combination of bacterial strains which is the subject of the claim (in the form of sticks, 3×10^9 CFU daily, *L. helveticus* CNCM I-1722 and *B. longum* CNCM I-3470 content in a ratio of 90:10) or placebo, identical in taste and appearance, for 30 days. Fifty-five subjects finished the study (26 subjects in the intervention group, 29 subjects in the control group, mean age 42.4 years in the intervention group and 43.2 years in the control group). At the beginning and at the end of the intervention the participants completed a set of questionnaires: the Hopkins Symptom Checklist (HSCL-90), the HADS, the Perceived Stress Scale (PSS) and the coping checklist (CCL). Moreover, 24 h urinary free cortisol was measured. In a separate publication (Messaoudi et al., 2011), a secondary sub-group analysis of the results of the above-described study for 25 subjects (10 in the study group and 15 in the control group) with urinary free cortisol concentrations less than 50 ng/ml at baseline was presented. The Panel notes that this study was designed for measuring anxiety and not changes induced by stress. The Panel considers that no conclusions can be drawn from these studies for the scientific substantiation of the claim.

The submitted studies in animals evaluated the results of administration of the combination of bacterial strains which is the subject of the claim on the conditioned defensive burying test (Messaoudi et al., 2010), on depressive behaviour after experimental myocardial infarction (Arseneault-Breard et al., 2011), and on apoptosis in the limbic system after myocardial infarction (Girard et al., 2009). The *in vitro* studies measured the effect of the combination of bacterial strains which is the subject of the claim on the proliferation rate of splenocytes and on immunoglobuline production (Easo et al., 2002), their survival in simulated gastro-intestinal conditions (Possemiers et al., 2010), the susceptibility of several bacterial strains affected by chemical stress to different antibiotics (Kheadr, 2006; Kheadr et al., 2007), and the effect of various *Lactobacillus* and *Bifidobacterium* strains on cytokine production by human intestinal epithelial cells (Wallace et al., 2003). The Panel considers that in the absence of evidence for an effect on the alleviation of

psychological stress in humans, evidence provided in these animal and *in vitro* studies cannot be used for the scientific substantiation of a claim on alleviation of psychological stress.

The Panel notes that no human intervention studies were provided from which conclusions could be drawn for the scientific substantiation of the claim.

The Panel concludes that a cause and effect relationship has not been established between the consumption of a combination of *L. helveticus* CNCM I-1722 and *B. longum* subsp. *longum* CNCM I-3470 and alleviation of psychological stress.

CONCLUSIONS

On the basis of the data presented, the Panel concludes that:

- The food constituent, a combination of *L. helveticus* CNCM I-1722 and *B. longum* CNCM I-3470, which is the subject of the health claims, is sufficiently characterised.

Alleviation of psychological stress (ID 938)

- The claimed effect proposed for further assessment is “significant improvement of stress-induced psychological and gastrointestinal symptoms like anxiety, anger-hostility, depressive symptoms, nausea and abdominal pain”. The proposed target population is healthy adults experiencing moderate stress or anxiety. Alleviation of psychological stress is a beneficial physiological effect.
- A cause and effect relationship has not been established between the consumption of a combination of *L. helveticus* CNCM I-1722 and *B. longum* subsp. *longum* CNCM I-3470 and alleviation of psychological stress.

“Maintains the balance of healthy microbiota that helps to strengthen the natural defence” (ID 2942)

- The claimed effect proposed for further assessment is “maintains the balance of healthy microbiota that helps to strengthen the natural defence”. The proposed target population is the general population. The claimed effect is general and non-specific, and does not refer to any specific health claim as required by Regulation (EC) No 1924/2006.

DOCUMENTATION PROVIDED TO EFSA

Health claims pursuant to Article 13 of Regulation (EC) No 1924/2006 for further assessment (No: EFSA-Q-2012-00130, EFSA-Q-2012-00178). The scientific substantiation is based on the information provided by the competent Authorities of the United Kingdom and of Italy for further assessment of this claim (available at: <http://www.efsa.europa.eu/en/topics/topic/article13.htm>).

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APPENDICES

APPENDIX A

BACKGROUND AND TERMS OF REFERENCE AS PROVIDED BY THE EUROPEAN COMMISSION

The Regulation 1924/2006 on nutrition and health claims made on foods⁵ (hereinafter "the Regulation") entered into force on 19th January 2007.

Article 13 of the Regulation foresees that the Commission shall adopt a Community list of permitted health claims other than those referring to the reduction of disease risk and to children's development and health. This Community list shall be adopted through the Regulatory Committee procedure and following consultation of the European Food Safety Authority (EFSA).

Health claims are defined as "any claim that states, suggests or implies that a relationship exists between a food category, a food or one of its constituents and health".

In accordance with Article 13 (1) health claims other than those referring to the reduction of disease risk and to children's development and health are health claims describing or referring to:

- a) the role of a nutrient or other substance in growth, development and the functions of the body; or
- b) psychological and behavioural functions; or
- c) without prejudice to Directive 96/8/EC, slimming or weight-control or a reduction in the sense of hunger or an increase in the sense of satiety or to the reduction of the available energy from the diet.

To be included in the Community list of permitted health claims, the claims shall be:

- (i) based on generally accepted scientific evidence; and
- (ii) well understood by the average consumer.

Member States provided the Commission with lists of claims as referred to in Article 13 (1) by 31 January 2008 accompanied by the conditions applying to them and by references to the relevant scientific justification. These lists have been consolidated into the list which forms the basis for the EFSA consultation in accordance with Article 13 (3).

ISSUES THAT NEED TO BE CONSIDERED

IMPORTANCE AND PERTINENCE OF THE FOOD⁶

Foods are commonly involved in many different functions⁷ of the body, and for one single food many health claims may therefore be scientifically true. Therefore, the relative importance of food e.g. nutrients in relation to other nutrients for the expressed beneficial effect should be considered: for functions affected by a large number of dietary factors it should be considered whether a reference to a single food is scientifically pertinent.

⁵ OJ L12, 18/01/2007

⁶ The term 'food' when used in this Terms of Reference refers to a food constituent, the food or the food category.

⁷ The term 'function' when used in this Terms of Reference refers to health claims in Article 13(1)(a), (b) and (c).

It should also be considered if the information on the characteristics of the food contains aspects pertinent to the beneficial effect.

SUBSTANTIATION OF CLAIMS BY GENERALLY ACCEPTABLE SCIENTIFIC EVIDENCE

Scientific substantiation is the main aspect to be taken into account to authorise health claims. Claims should be scientifically substantiated by taking into account the totality of the available scientific data, and by weighing the evidence, and shall demonstrate the extent to which:

- (a) the claimed effect of the food is beneficial for human health,
- (b) a cause and effect relationship is established between consumption of the food and the claimed effect in humans (such as: the strength, consistency, specificity, dose-response, and biological plausibility of the relationship),
- (c) the quantity of the food and pattern of consumption required to obtain the claimed effect could reasonably be achieved as part of a balanced diet,
- (d) the specific study group(s) in which the evidence was obtained is representative of the target population for which the claim is intended.

EFSA has mentioned in its scientific and technical guidance for the preparation and presentation of the application for authorisation of health claims consistent criteria for the potential sources of scientific data. Such sources may not be available for all health claims. Nevertheless it will be relevant and important that EFSA comments on the availability and quality of such data in order to allow the regulator to judge and make a risk management decision about the acceptability of health claims included in the submitted list.

The scientific evidence about the role of a food on a nutritional or physiological function is not enough to justify the claim. The beneficial effect of the dietary intake has also to be demonstrated. Moreover, the beneficial effect should be significant i.e. satisfactorily demonstrate to beneficially affect identified functions in the body in a way which is relevant to health. Although an appreciation of the beneficial effect in relation to the nutritional status of the European population may be of interest, the presence or absence of the actual need for a nutrient or other substance with nutritional or physiological effect for that population should not, however, condition such considerations.

Different types of effects can be claimed. Claims referring to the maintenance of a function may be distinct from claims referring to the improvement of a function. EFSA may wish to comment whether such different claims comply with the criteria laid down in the Regulation.

WORDING OF HEALTH CLAIMS

Scientific substantiation of health claims is the main aspect on which EFSA's opinion is requested. However, the wording of health claims should also be commented by EFSA in its opinion.

There is potentially a plethora of expressions that may be used to convey the relationship between the food and the function. This may be due to commercial practices, consumer perception and linguistic or cultural differences across the EU. Nevertheless, the wording used to make health claims should be truthful, clear, reliable and useful to the consumer in choosing a healthy diet.

In addition to fulfilling the general principles and conditions of the Regulation laid down in Article 3 and 5, Article 13(1)(a) stipulates that health claims shall describe or refer to "the role of a nutrient or other substance in growth, development and the functions of the body". Therefore, the requirement to

describe or refer to the 'role' of a nutrient or substance in growth, development and the functions of the body should be carefully considered.

The specificity of the wording is very important. Health claims such as "Substance X supports the function of the joints" may not sufficiently do so, whereas a claim such as "Substance X helps maintain the flexibility of the joints" would. In the first example of a claim it is unclear which of the various functions of the joints is described or referred to contrary to the latter example which specifies this by using the word "flexibility".

The clarity of the wording is very important. The guiding principle should be that the description or reference to the role of the nutrient or other substance shall be clear and unambiguous and therefore be specified to the extent possible i.e. descriptive words/ terms which can have multiple meanings should be avoided. To this end, wordings like "strengthens your natural defences" or "contain antioxidants" should be considered as well as "may" or "might" as opposed to words like "contributes", "aids" or "helps".

In addition, for functions affected by a large number of dietary factors it should be considered whether wordings such as "indispensable", "necessary", "essential" and "important" reflects the strength of the scientific evidence.

Similar alternative wordings as mentioned above are used for claims relating to different relationships between the various foods and health. It is not the intention of the regulator to adopt a detailed and rigid list of claims where all possible wordings for the different claims are approved. Therefore, it is not required that EFSA comments on each individual wording for each claim unless the wording is strictly pertinent to a specific claim. It would be appreciated though that EFSA may consider and comment generally on such elements relating to wording to ensure the compliance with the criteria laid down in the Regulation.

In doing so the explanation provided for in recital 16 of the Regulation on the notion of the average consumer should be recalled. In addition, such assessment should take into account the particular perspective and/or knowledge in the target group of the claim, if such is indicated or implied.

TERMS OF REFERENCE

HEALTH CLAIMS OTHER THAN THOSE REFERRING TO THE REDUCTION OF DISEASE RISK AND TO CHILDREN'S DEVELOPMENT AND HEALTH

EFSA should in particular consider, and provide advice on the following aspects:

- Whether adequate information is provided on the characteristics of the food pertinent to the beneficial effect.
- Whether the beneficial effect of the food on the function is substantiated by generally accepted scientific evidence by taking into account the totality of the available scientific data, and by weighing the evidence. In this context EFSA is invited to comment on the nature and quality of the totality of the evidence provided according to consistent criteria.
- The specific importance of the food for the claimed effect. For functions affected by a large number of dietary factors whether a reference to a single food is scientifically pertinent.

In addition, EFSA should consider the claimed effect on the function, and provide advice on the extent to which:

- the claimed effect of the food in the identified function is beneficial.
- a cause and effect relationship has been established between consumption of the food and the claimed effect in humans and whether the magnitude of the effect is related to the quantity consumed.
- where appropriate, the effect on the function is significant in relation to the quantity of the food proposed to be consumed and if this quantity could reasonably be consumed as part of a balanced diet.
- the specific study group(s) in which the evidence was obtained is representative of the target population for which the claim is intended.
- the wordings used to express the claimed effect reflect the scientific evidence and complies with the criteria laid down in the Regulation.

When considering these elements EFSA should also provide advice, when appropriate:

- on the appropriate application of Article 10 (2) (c) and (d) in the Regulation, which provides for additional labelling requirements addressed to persons who should avoid using the food; and/or warnings for products that are likely to present a health risk if consumed to excess.

APPENDIX B

EFSA DISCLAIMER

The present opinion does not constitute, and cannot be construed as, an authorisation to the marketing of the food/food constituent, a positive assessment of its safety, nor a decision on whether the food/food constituent is, or is not, classified as foodstuffs. It should be noted that such an assessment is not foreseen in the framework of Regulation (EC) No 1924/2006.

It should also be highlighted that the scope, the proposed wordings of the claims and the conditions of use as proposed in the Consolidated List may be subject to changes, pending the outcome of the authorisation procedure foreseen in Article 13(3) of Regulation (EC) No 1924/2006.

APPENDIX C

Table 1. Health claims related to a combination of *Lactobacillus helveticus* CNCM I-1722 and *Bifidobacterium longum* subsp. *longum* CNCM I-3470, including conditions of use, as proposed in the framework of further assessment.

ID	Food or Food constituent	Health Relationship	Proposed wording
938	A combination of 2 bacterial strains: <i>Lactobacillus helveticus</i> CNCM I-1722 and <i>Bifidobacterium longum</i> subsp. <i>Longum</i> CNCM I-3470. The percentage of each strain is respectively 90% and 10%, under the form of lyophilised microencapsulated powders. The finished product is commercialised as a stick sachet under the brand name Probio’Stick®.	Significant improvement of stress-induced psychological and gastrointestinal symptoms like anxiety, anger-hostility, depressive symptoms, nausea and abdominal pain.	The improvement of some of the psychological and gastrointestinal disorders linked to stress.
	Conditions of use It is recommended to take 3*10 ⁹ CFU of the food constituent per day. Healthy adults experiencing moderate stress or anxiety is the target population.		
ID	Food or Food constituent	Health Relationship	Proposed wording
2942	<i>Lactobacillus acidophilus/helveticus</i> Bar 13 (CNCM-I-3857) and <i>Bifidobacterium longum</i> Bar 33 (CNCM-I-3858) - mix 1:1	Maintains the balance of healthy microbiota, that helps to strengthen the natural defence	Maintains the balance of healthy microbiota, that helps to strengthen the natural defence
	Conditions of use The clinical trial in healthy people with a daily intake of 1 Alixir Immunitas chocolate bar demonstrated the adhesion to the intestinal epithelium cells of the strains Bar 13 and Bar33 and an increase of <i>Bifidobacteria</i> in healthy people who had naturally low level of <i>Bifidobacteria</i> 1 serving per day, containing 10 ⁹ CFU of probiotics Bar13 and Bar33/serving The serving corresponds to 1 bar ALIXIR IMMUNITAS weighting 16g and delivering 80 kcal		

GLOSSARY AND ABBREVIATIONS

AFLP	Amplified fragment length polymorphism
CCL	Coping checklist
CNCM	Collection Nationale de Cultures de Microorganismes, France
DNA	Deoxyribonucleic acid
HADS	Hospital anxiety and depression scale
HSCL	Hopkins symptom checklist
MLST	Multi-locus sequence typing
PAGE	Polyacrylamide gel electrophoresis
PCR	Polymerase chain reaction
PFGE	Pulsed field gel electrophoresis
PSS	Perceived stress scale
RAPD	Random amplification of polymorphic DNA
RNA	Ribonucleic acid
VAS	Visual analogue scale